

Appl. No: 09/380,447
Amendment Dated August 22, 2005
Reply to Office Action of February 23, 2005

REMARKS

Applicants respectfully request entry of the Amendment and reconsideration of the claims.

Applicants have cancelled claim 42 without prejudice or disclaimer. Applicants reserve the right to pursue the subject matter of this claim in one or more continuation applications.

Claims 1, 3-4, 7-9, 11-12, 30-33, 44-47, and 52-54 are currently pending. Applicants respectfully request reconsideration and withdrawal of the pending rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a).

Priority

Applicants wish to note the correct priority for this application. The instant application is a national stage application of PCT/US99/16596 filed July 22, 1999, which application claims the benefit of U.S. Provisional Application No. 60/094,291, filed July 27, 1998, U.S. Provisional Application No. 60/103,514, filed October 8, 1998, U.S. Provisional Application No. 60/133,296, filed May 10, 1999, and U.S. Provisional Application No. 60/134,870, filed May 19, 1999. The priority information is incorrect on the filing receipt, and Applicants submitted a Request for Corrected Filing Receipt on July 25, 2002. Applicants again request a corrected filing receipt indicating the above priority information.

Restriction of Claim 42

The Examiner has withdrawn claim 42 and asserts that a phage vaccine is distinct subject matter with different structural features than the elected subject invention. As such, the Examiner asserts that claim 42 is directed to a non-elected invention. Although Applicants disagree, Applicants have cancelled claim 42 without prejudice or disclaimer.

Rejection under 35 U.S.C. 102(b)

The Examiner rejects claims 1, 3-4, 7-9, 11-12, 30-31, and 44 under 35 U.S.C. 102(b) as allegedly anticipated by U.S. Patent No. 5,770,356 (Light, II et al.). Specifically, the Examiner refers to SEQ ID NO:14 of the '356 patent as a variant of the VIII coat protein. Applicants respectfully traverse.

Appl. No: 09/380,447
Amendment Dated August 22, 2005
Reply to Office Action of February 23, 2005

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference". *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987); *See also*, MPEP §2131.

The Examiner has not established that each and every claim limitation of independent claim 1 is disclosed in the '356 patent. Claim 1 recites a fusion protein comprising, *inter alia*, a variant of a wild-type major coat protein (emphasis added). The Examiner asserts that SEQ ID NO: 14 at col. 23, lines 40-41 is a variant of the cp VIII major coat protein (Office Action at p. 7). Applicants respectfully disagree. SEQ ID NO:14 is a cp VIII leader sequence (see Title of Table 1 at col. 23, line 19 of the '356 patent) of a wild type cp VIII. Leader sequences are found at the N terminal end of the vector and provide for secretion of the polypeptide into the periplasmic space. (See col. 8, lines 27-32 of the '356 patent.) Leader sequences are typically removed. Moreover, as discussed at col. 22, lines 50-67 of '356 patent, the prokaryotic secretion signal domain is a separate sequence and can be located before the sequence encoding a heterologous polypeptide.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. §102(b).

Rejection under 35 U.S.C. 103(a)

The Examiner rejects claims 1, 3-4, 7-9, 11-12, 30-31, and 44 under 35 U.S.C. 103(a) as allegedly obvious over U.S. Patent No. 5,770,356 (Light, II et al.) in combination with U.S. Patent No. 6,794,128 (Marks et al.). Applicants respectfully traverse.

To establish a *prima facie* case of obviousness, three criteria must be met--a suggestion or motivation to combine references, a reasonable expectation of success, and the prior art reference teaches or suggests all the claim limitations. MPEP §2143; *In re Vaack*, 947 F.2d 488 (Fed. Cir. 1991). The Examiner has not established a *prima facie* case of obviousness because in the least the Examiner has not established that the prior art references teach or suggest all of the claim limitations.

The Examiner asserts that SEQ ID NO:14 from the '356 patent is a gene VIII coat protein variant (Office Action at p. 8). The Examiner combines the '356 patent with the '128 patent, which discloses an antibody phage display library, wherein the antibody is fused to a gene III

Appl. No: 09/380,447
Amendment Dated August 22, 2005
Reply to Office Action of February 23, 2005

minor coat protein. As discussed above, SEQ ID NO:14 from the '356 patent is a leader sequence domain located separately in the vector, and, thus, not a variant of a wild type major coat protein. The leader sequence is located before the sequence encoding the heterologous protein. Moreover, the '356 patent does not teach or suggest that variants of a wild type major coat protein can or should be made and would be able to provide for proper phage display. The deficiencies of the '356 patent are not remedied by reference to the Marks et al. patent ('128). The Marks et al. patent also does not teach or suggest a variant of a wild type major coat protein of the virus. Thus, Applicants submit that even when the references are combined they do not disclose all of the elements of Applicants' claims.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a).

Request for an Interview

Applicants request an interview with the Examiner and/or the supervisor to discuss any outstanding issues concerning this case. Applicants request that the Examiner call to schedule an interview upon receipt of these papers.

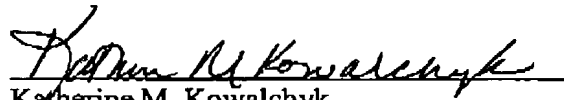
SUMMARY

Applicants submit that the claims are in condition for allowance and notification to that effect is earnestly solicited. The Examiner is invited to contact Applicants' representative if prosecution may be assisted thereby.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: Aug. 22, 2005


Katherine M. Kowalchuk
Reg. NO:36,848
KMK:BRD:sab

